

CLAIM

1. A dynamic bearing device comprising:

a housing;

5 a bearing sleeve fixed on an inner periphery of said housing;

an axial member having an axial portion and a flange portion;

a thrust member attached to one end of said housing;

10 a radial bearing portion provided between said bearing sleeve and said axial portion to support said axial portion in a radial direction in a non-contact manner by an action of dynamic pressure of lubricating oil generated in a radial bearing gap; and

15 a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating 20 oil generated in a thrust bearing gap;

the dynamic bearing device characterized in that said housing is made of resin.

2. A dynamic bearing device comprising:

25 a housing;

a bearing sleeve fixed on an inner periphery of said housing;

an axial member having an axial portion and a flange portion;

5 a thrust member attached to one end of said housing;
a radial bearing portion provided between said bearing sleeve and said axial portion to support said axial portion in a radial direction in a non-contact manner by an action of dynamic pressure of lubricating oil generated in

10 a radial bearing gap; and

a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating 15 oil generated in a thrust bearing gap;

the dynamic bearing device characterized in that said housing is made of resin, and said thrust member is fixed on one end of said housing by welding.

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3. A dynamic bearing device comprising:

a housing;

a bearing sleeve fixed on an inner periphery of said housing;

25 an axial member having an axial portion and a flange

portion;

 a thrust member attached to one end of said housing;

 a radial bearing portion provided between said bearing sleeve and said axial portion to support said axial

5 portion in a radial direction in a non-contact manner by an action of dynamic pressure of lubricating oil generated in a radial bearing gap; and

 a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said

10 thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap;

 the dynamic bearing device characterized in that said

15 housing is made of resin, and said thrust member is attached to one end of said housing, and a seal member is fixed on said end by welding.

4. A dynamic bearing device comprising:

20 a housing;

 a bearing sleeve made of sintered metal, said bearing sleeve being fixed on an inner periphery of said housing;

 an axial member having an axial portion and a flange portion;

25 a thrust member attached to one end of said housing;

a radial bearing portion provided between said bearing sleeve and said axial portion to support said axial portion in a radial direction in a non-contact manner by an action of dynamic pressure of lubricating oil generated in
5 a radial bearing gap; and

a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap;

the dynamic bearing device characterized in that said housing is made of resin, and said bearing sleeve is fixed on said inner periphery of said housing by welding.

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5. A dynamic bearing device comprising:

a housing;

a bearing sleeve fixed on an inner periphery of said housing;

20 an axial member having an axial portion and a flange portion;

a thrust member attached to one end of said housing;

a seal member attached to the other end of said housing;

25 a radial bearing portion provided between said

bearing sleeve and said axial portion to support said axial portion in a radial direction in a non-contact manner by the action of dynamic pressure of lubricating oil generated in a radial bearing gap; and

5 a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating

10 oil generated in a thrust bearing gap;

 the dynamic bearing device characterized in that said housing is made of resin, and said seal member is fixed on said other end of said housing by welding.

15 6. A dynamic bearing device comprising:

 a housing;

 a bearing sleeve made of sintered metal, said bearing sleeve being fixed on the inner periphery of said housing;

 an axial member having an axial portion and a flange

20 portion;

 a thrust member attached to one end of said housing;

 a radial bearing portion provided between said bearing sleeve and said axial portion to support said axial portion in a radial direction in a non-contact manner by an

25 action of dynamic pressure of lubricating oil generated in

a radial bearing gap; and

 a thrust bearing portion provided between said bearing sleeve and said flange portion, and between said thrust member and said flange portion, to support said flange portion in a thrust direction in a non-contact manner by an action of dynamic pressure of said lubricating oil generated in a thrust bearing gap;

 the dynamic bearing device characterized in that said housing is made of the same type of metal as said bearing sleeve, and said bearing sleeve is fixed on said inner periphery of said housing by welding.

7. The dynamic bearing device according to any one of claims 2 to 5, characterized in that ultrasonic welding is adopted as said welding.